Determination of ovarian activity and follicular dynamics with laparoscopic technique in estrus synchronized ewes with different methods in breeding and out of the breeding seasons

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The aim of this study was to determine effects of estrus synchronization methods on ovarian activity with laparoscopy at in-breeding and out-of-breeding seasons. The vaginal CIDR was inserted and withdrawn following 12 days and ewes were allocated randomly into two treatment groups. First group ewes (in-breeding; $n = 6$ and out-of-breeding; $n = 4$) were injected 600 IU PMSG and second group ewes (in-breeding; $n = 6$ and out-of-breeding; $n = 4$) were injected twice 6 mg FSH at 12 h intervals. After 48 and 144 h from injections, ovaries images of all ewes were record with laparoscopy. Follicle diameter (2–8 mm; small-moderate and 8 mm<; large), number and CL number on ovary were determined. PMSG increased ($p < 0.05$) large follicles number (at 48 h) and CL number (at 48 and 144 h) compare to FSH in breeding season. All follicles numbers and CL numbers of PMSG treated ewes were higher ($p < 0.05$) than those of FSH both in the both observations in out of breeding season. Laparoscopic observations showed that application of PMSG at out of breeding season may increase success rate supporting ovarian activity in estrus synchronization in ewe. This work was supported by the Ahi Evran University Scientific Research Projects Coordination Unit. Project Number: ZRT.E2.17.001.

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Characterization of muscle fibers in Turkish native goat breeds

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Skeletal muscle fiber characteristics are one of the most important factors affecting meat quality. This research was, therefore, conducted to determine muscle fiber characteristics in Longissimus dorsi (LD) and Semitendinosus (ST) muscles from kids of Turkish native goat breeds. A total of 24 singleton male lambs were used as experimental animals born to Honamli ($n = 6$), Kil ($n = 6$) and Angora ($n = 6$), Kilis ($n = 6$) goat breeds. After the weaning (3 month) all kids were slaughtered and LD and ST muscle samples were collected for ATPase staining of muscle fibers. Honamli and Kil kids had higher ($P < 0.05$) numbers of type IIA muscle fiber number (mm^2/number) compared to Kilis and Angora kids in LD and ST muscles. There were no significant differences between kids born to Turkish native goat breeds in terms of cross section area (μm^2) of type I, IIA and IIB muscle fibers in LD and ST muscles. Results of present study showed that some muscle fiber characteristics of kids born to Turkish indigenous goat breeds may show variations. This work was supported by the Ahi Evran University Scientific Research Projects Coordination Unit. Project No: ZRT.E2.17.05.

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Researches regarding factors affecting the quality of buffalo spermatozoa

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The domestic buffalo, *Bubalus bubalis*, is a distinct species within the *Bovidae* family with a population continuously increasing and with a more and more economic importance worldwide.

Nowadays, having in view the fact that the methods of sperm assessment are a must in obtaining, processing and use of a fertile sperm production, the objective of the present paper was the analyze of the usual sperm files of buffalo bulls depending on some important factors with influence on sperm quality. To identify the main variation sources and the way these factors influence the amount and meanwhile the quality of the semen, the main sperm parameters were assessed in different years, on different individuals at different ages and in different seasons. The main analyzed parameters were the following: volume, concentration in sperm cells, motility, smell and colour. We could conclude that the real significance of determining the volume of semen appears not by individual samples at one sperm collection, but from the values assumed during a long period as a scientific base in the complex assessment of the reproducers. The very precise assessment of semen concentration and motility represent major objectives within the processing flow of artificial insemination biotechnology.

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Comparative researches concerning artificial reproduction with pituitary extract and GnRH in Carp

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During the past years, researchers and farmers have been used successfully for the artificial reproduction of common carp two METHODS: the first one used acetone-dried common carp pituitary